

What we claim is:

1. A system for routing a plurality of end-users through an access network to a plurality of service providers based on a request for a particular service of a plurality of services, comprising:

a service provider selection mechanism configured to relate a particular service provider to a particular end-user for providing the particular service to the particular end-user; and

a path determination mechanism configured to route the particular end-user through the access network to the particular service provider when the particular end-user requests the particular service.

2. The system of Claim 1, wherein the service provider selection mechanism comprises a database.

3. The system of Claim 2, wherein the database comprises a distributed database.

4. The system of Claim 2, wherein the database is populated with a plurality of end-user service entries, each end-user service entry including

an end-user identification indicator corresponding to a unique one of the plurality of end-users,

a selected service indicator corresponding to a selected one of the plurality of services, and

a selected service provider indicator corresponding to a selected one of the plurality of service providers selected to provide the selected one of the plurality of services to the unique one of the plurality of end-users.

5. The system of Claim 4, wherein the end-user identification indicator comprises at least one of a number, an Internet protocol address, a media access control address, a telephone number, a port number, a local area network tag, a virtual local area network tag, a multi-protocol label switching label, a label-switched path label, a label, a tag, a serial number, and a social security number.

6. The system of Claim 4, wherein:
the service provider selection mechanism is further configured such that at least one of an operator of the access network, an authorized agency, a governing entity, a regulatory entity, one of the plurality of end-users, one of the plurality of service providers, and a third party can populate the end-user identification indicator for the particular end-user in the database.

7. The system of Claim 1, wherein:
the request is made over the access network providing a communication path between the particular end-user and a data center,
the path determination mechanism is further configured to route the particular end-user through the access network to the particular service provider, and
the particular service provider provides the particular end-user with access to a service network providing the particular service.

8. The system of Claim 7, wherein the service network comprises at least one of an Internet protocol network, the Internet, a data network, a video network, and a voice network.

9. The system of Claim 1, wherein the access network comprises an open access network.

10. The system of Claim 1, wherein the access network comprises at least one of a hybrid fiber optic/coaxial network, a digital subscriber line, a dialup connection, a fiber optic connection, a coaxial connection, a twisted pair connection, a cat5 connection, a cat5e connection, and a cat6 connection.

11. The system of Claim 1, wherein the plurality of service providers comprise at least one of an Internet service provider, a telephone company, a cable television company, a video content provider, a voice-over-Internet protocol provider, and a data services provider.

12. The system of Claim 1, further comprising:
a data center configured to provide connectivity between the access network and a plurality of service networks, wherein
the plurality of end-users access the data center via the access network, and
the data center is configured to route end-users to the plurality of service networks via the plurality of service providers.

13. The system of Claim 1, wherein the plurality of services comprise at least one of data services, Internet access, voice services, telephone services, teleconferencing services, long distance telephone service, local telephone service, video services, video conferencing services, video on demand services, and cable television services.

14. The system of Claim 1, wherein the path determination mechanism is further configured to route the particular end-user to the particular service provider by selecting at least one of a forwarding path, a channel, and a tunnel.

15. The system of Claim 1, wherein the path determination mechanism is further configured to route the particular end-user to the particular service provider using at least one of source address routing, multi-protocol label switching, asynchronous transfer mode, private virtual circuits, switched virtual circuits, virtual local area networks, layer two tunneling protocol tunnels, Internet protocol secure tunnels, point-to-point tunneling protocol tunnels, and point-to-point protocol over ethernet.

16. The system of Claim 1, wherein:
the path determination mechanism is further configured to route the particular end-user to an alternate service provider of the plurality of service providers when a path is not available from the particular end-user to the particular service provider, and

the service provider selection mechanism is further configured to relate the alternate service provider to the particular end-user for alternately providing the particular service to the particular end-user.

17. The system of Claim 4, wherein each end-user service entry further includes

an alternate service provider indicator corresponding to another one of the plurality of service providers for alternately providing the selected one of the plurality of services to the unique one of the plurality of end-users.

18. The system of Claim 17, wherein:

the service provider selection mechanism is further configured to populate the alternate service provider indicator by at least one of

assigning a default service provider of the plurality of service providers for providing the selected one of the plurality of services,

randomly assigning a random service provider of the plurality of service providers for providing the selected one of the plurality of services based on a random selection, and

assigning a user-specified service provider of the plurality of service providers for providing the selected one of the plurality of services based on a user input.

19. The system of Claim 1, wherein:

the path determination mechanism is further configured such that at least one of an operator of the access network, an authorized agency, a governing entity, a

regulatory entity, and a third party can cause the particular end-user to be routed to an available one of the plurality of service providers for providing the particular service when it is determined that an acceptable path between the particular end-user and the particular service provider cannot not established.

20. A system for routing an end-user of a plurality of end-users to a first service provider of a plurality of service providers for providing a first service over an open access network and to a second service provider of the plurality of service providers for providing a second service over the open access network, comprising:

a digital repository populated with a plurality of end-user service entries, each end-user service entry including

an end-user identification indicator corresponding to a unique one of the plurality of end-users,

a selected service indicator corresponding to a selected one of the first service and the second service, and

a selected service provider indicator corresponding to a selected one of the first service provider and the second service provider selected to provide the selected one of the first service and the second service to the unique one of the plurality of end-users;

a processor; and

a computer readable medium encoded with processor readable instructions that when executed by the processor implement

a service provider selection mechanism configured to populate the digital repository with an end-user service entry,

a service request mechanism configured to accept a request from the end-user for a requested one of the first service and the second service,

a path determination mechanism configured to query the digital repository for a retrieved end-user service entry based on the end-user and the requested one of the first service and the second service and to provide a network path from the end-user to a selected one of the first service provider and the second service provider, the selected one of the first service provider and the second service provider being determined based on information stored in the retrieved end-user service entry.

21. The system of Claim 20, wherein

the request is made over an access network providing a communication path between the end-user and a data center,

the network path comprises a path from the end-user through the access network to the selected one of the first service provider and the second service provider, and

the selected one of the first service provider and the second service provider provides access to a service network providing the requested one of the first service and the second service.

22. The system of Claim 20, wherein the open access network comprises at least one of a hybrid fiber optic/coaxial network, a digital subscriber line, a dialup connection, a fiber optic connection, a coaxial connection, a twisted pair connection, a cat5 connection, a cat5e connection, and a cat6 connection.

23. The system of Claim 21, wherein the service network comprises at least one of an Internet protocol network, the Internet, a data network, a video network, and a voice network.

24. The system of Claim 20, wherein at least one of the first service provider and the second service provider comprise at least one of an Internet service provider, a telephone company, a cable television company, a video content provider, a voice-over-Internet protocol provider, and a data services provider.

25. The system of Claim 20, wherein at least one of the first service and the second service comprises at least one of data services, Internet access, voice services, telephone services, teleconferencing services, long distance telephone service, local telephone service, video services, video conferencing services, video on demand services, and cable television services.

26. The system of Claim 20, wherein the end-user identification indicator comprises at least one of a number, an Internet protocol address, a media access control address, a telephone number, a port number, a local area network tag, a virtual local area network tag, a multi-protocol label switch label, a label-switched path label, a label, a tag, a serial number, and a social security number.

27. The system of Claim 20, wherein the path determination mechanism is further configured to route the end-user to the selected one of the first service provider

and the second service provider by selecting at least one of a forwarding path, a channel, and a tunnel.

28. The system of Claim 20, wherein:

the path determination mechanism is further configured to route the end-user to the selected one of the first service provider and the second service provider using at least one of source address routing, multi-protocol label switching, asynchronous transfer mode, private virtual circuits, switched virtual circuits, virtual local area networks, layer two tunneling protocol tunnels, Internet protocol secure tunnels, point-to-point tunneling protocol tunnels, and point-to-point protocol over ethernet.

29. The system of Claim 20, wherein:

each end-user service entry further includes

an alternate service provider indicator corresponding to an alternate one of the first service provider and the second service provider selected to alternately provide the requested one of the first service and the second service to the end-user, and

the path determination mechanism is further configured to route the end-user to the alternate one of the first service provider and the second service provider to provide the requested one of the first service and the second service when a path is not available from the end-user to the selected one of the first service provider and the second service provider.

30. The system of Claim 29, wherein:

the service provider selection mechanism is further configured to populate the alternate service provider indicator by at least one of

assigning a default service provider of the plurality of service providers for providing the requested one of the first service and the second service,

randomly assigning a random service provider of the plurality of service providers for providing the requested one of the first service and the second service based on a random selection, and

assigning a user-specified service provider of the plurality of service providers for providing the requested one of the first service and the second service based on a user input.

31. The system of Claim 20, wherein:

the digital repository comprises a database.

32. The system of Claim 31, wherein:

the database comprises a distributed database.

33. The system of Claim 20, wherein:

the service provider selection mechanism is further configured such that at least one of an operator of the access network, an authorized agency, a governing entity, a regulatory entity, one of the plurality of end-users, one of the plurality of service providers, and a third party can populate the end-user identification indicator for the end-user in the database.

34. The system of Claim 20, wherein:

the path determination mechanism is further configured to route the end-user to the selected one of the first service provider and the second service provider using at least one of source address routing, multi-protocol label switching, asynchronous transfer mode, private virtual circuits, switched virtual circuits, and virtual local area networks.

35. The system of Claim 20, wherein:

the path determination mechanism is further configured to route the end-user to an alternate one of the first service provider and the second service provider to provide the requested one of the first service and the second service when a path is not available from the end-user to the selected one of the first service provider and the second service provider, and

the alternate one of the first service provider and the second service provider comprises one of a default and a randomly selected service provider.

36. A method for routing an end-user to a first service provider of a plurality of service providers for providing a first selected service over an access network and to a second service provider of the plurality of service providers for providing a second selected service over the access network, comprising the steps of:

populating a digital repository with a first indicator of an association between the end-user and the first service provider for providing the first selected service to the end-user;

populating the digital repository with a second indicator of an association between the end-user and the second service provider for providing the second selected service to the end-user;

requesting by the end-user to receive one of the first selected service and the second selected service;

querying the digital repository for one of the first indicator and the second indicator based on the end-user making a request in the requesting step and the one of the first selected service and the second selected service requested in the requesting step; and

routing the end-user to one of the first service provider and the second service provider corresponding to the one of the first indicator and the second indicator queried in the querying step.

37. The method of Claim 36, wherein:

the requesting step comprises requesting the one of the first selected service and the second selected service over an access network providing a communication path between the end-user and a data center,

the routing step comprises routing the end-user through the access network to the data center, and from the data center to the one of the first service provider and the second service provider, and

the one of the first service provider and the second service provider provides the end-user with access to a service network providing the one of the first selected service and the second selected service.

38. The method of Claim 36, wherein the access network comprises an open access network.

39. The method of Claim 36, wherein the access network comprises at least one of a hybrid fiber optic/coaxial network, a digital subscriber line, a dialup connection, a fiber optic connection, a coaxial connection, a twisted pair connection, a cat5 connection, a cat5e connection, and a cat6 connection.

40. The method of Claim 36, wherein the service network comprises at least one of an Internet protocol network, the Internet, a data network, a video network, and a voice network.

41. The method of Claim 36, wherein at least one of the first service provider and the second service provider comprise at least one of an Internet service provider, a telephone company, a cable television company, a video content provider, a voice-over-Internet protocol provider, and a data services provider.

42. The method of Claim 36, wherein at least one of the first selected service and the second selected service comprises at least one of data services, Internet access, voice services, telephone services, teleconferencing services, long distance telephone service, local telephone service, video services, video conferencing services, video on demand services, and cable television services.

43. The method of Claim 36, wherein the step of routing comprises routing the end-user to the one of the first service provider and the second service provider by selecting at least one of a forwarding path, a channel, and a tunnel.

44. The method of Claim 36, wherein:

the step of routing comprises routing the end-user to the one of the first service provider and the second service provider using at least one of source address routing, multi-protocol label switching, asynchronous transfer mode, private virtual circuits, switched virtual circuits, virtual local area networks, layer two tunneling protocol tunnels, Internet protocol secure tunnels, point-to-point tunneling protocol tunnels, and point-to-point protocol over ethernet.

45. The method of Claim 36, further comprising the step of:

populating the digital repository with a third indicator of an association between the end-user and an alternate service provider for providing the first selected service to the end-user when the first selected service is not available from the first service provider, wherein

the routing step further comprises routing the end-user to the alternate service provider to provide the first selected service when a network path is not available from the end-user to the first service provider.

46. The method of Claim 45, wherein:

the populating the digital repository with a third indicator step comprises populating the third indicator by at least one of

assigning a default service provider of the plurality of service providers for providing the first selected service,

randomly assigning a random service provider of the plurality of service providers for providing the first selected service based on a random selection, and

assigning a user-specified service provider of the plurality of service providers for providing the first selected service based on a user input.

47. The method of Claim 36, further comprising a step of:

populating the digital repository with an end-user identification indicator corresponding to the end-user by at least one of an operator of the access network, an authorized agency, a governing entity, a regulatory entity, one of the plurality of end-users, one of the plurality of service providers, and a third party..

48. The method of Claim 36, wherein:

the routing step further comprises routing the end-user to an alternate service provider to provide the first selected service when a network path is not available from the end-user to the first service provider, and

the alternate service provider comprises one of a default and a randomly selected service provider.

49. A computer program product, comprising:

a computer storage medium; and

a computer program code mechanism embedded in the computer storage medium for causing a computer to route an end-user to a first service provider of a

plurality of service providers for providing a first service over an open access network and to a second service provider of the plurality of service providers for providing a second service over the open access network, the computer program code mechanism having

a first computer code device configured to populate a digital repository with a plurality of end-user service entries, each end-user service entry including

an end-user identification indicator corresponding to a unique one of the plurality of end-users,

a selected service indicator corresponding to a selected one of the first service and the second service, and

a selected service provider indicator corresponding to a selected one of the first service provider and the second service provider selected to provide the selected one of the first service and the second service to the unique one of the plurality of end-users,

a second computer code device configured to accept a request from the end-user for a requested one of the first service and the second service, and

a third computer code device configured to query the digital repository for a retrieved end-user service entry based on the end-user and the requested one of the first service and the second service and to provide a network path from the end-user to a selected one of the first service provider and the second service provider, the selected one of the first service provider and the second service provider being determined based on information stored in the retrieved end-user service entry.

50. The computer program product of Claim 49, wherein

the request is made over an access network providing a communication path between the end-user and a data center,

the network path comprises a path from the end-user through the access network to the selected one of the first service provider and the second service provider, and

the selected one of the first service provider and the second service provider provides access to a service network providing the requested one of the first service and the second service.

51. The computer program product of Claim 49 wherein the open access network comprises at least one of a hybrid fiber optic/coaxial network, a digital subscriber line, a dialup connection, a fiber optic connection, a coaxial connection, a twisted pair connection, a cat5 connection, a cat5e connection, and a cat6 connection.

52. The computer program product of Claim 50, wherein the service network comprises at least one of an Internet protocol network, the Internet, a data network, a video network, and a voice network.

53. The computer program product of Claim 49, wherein at least one of the first service provider and the second service provider comprise at least one of an Internet service provider, a telephone company, a cable television company, a video content provider, a voice-over-Internet protocol provider, and a data services provider.

54. The computer program product of Claim 49, wherein at least one of the first service and the second service comprises at least one of data services, Internet access,

voice services, telephone services, teleconferencing services, long distance telephone service, local telephone service, video services, video conferencing services, video on demand services, and cable television services.

55. The computer program product of Claim 49, wherein the end-user identification indicator comprises at least one of a number, an Internet protocol address, a media access control address, a telephone number, a port number, a local area network tag, a virtual local area network tag, a multi-protocol label switch label, a label-switched path label, a label, a tag, a serial number, and a social security number.

56. The computer program product of Claim 49, wherein the third computer code device is further configured to route the end-user to the selected one of the first service provider and the second service provider by selecting at least one of a forwarding path, a channel, and a tunnel.

57. The computer program product of Claim 49, wherein the third computer code device is further configured to route the end-user to the selected one of the first service provider and the second service provider using at least one of source address routing, multi-protocol label switching, asynchronous transfer mode, private virtual circuits, switched virtual circuits, virtual local area networks, layer two tunneling protocol tunnels, Internet protocol secure tunnels, point-to-point tunneling protocol tunnels, and point-to-point protocol over ethernet.

58. The computer program product of Claim 49, wherein:

each end-user service entry further includes

an alternate service provider indicator corresponding to an alternate one of the first service provider and the second service provider selected to alternately provide the requested one of the first service and the second service to the end-user, and

the third computer code device is further configured to route the end-user to the alternate one of the first service provider and the second service provider to provide the requested one of the first service and the second service when a network path is not available from the end-user to the selected one of the first service provider and the second service provider.

59. The computer program product of Claim 58, wherein:

the first computer code device is further configured to populate the alternate service provider indicator by at least one of

assigning a default service provider of the plurality of service providers for providing the requested one of the first service and the second service,

randomly assigning a random service provider of the plurality of service providers for providing the requested one of the first service and the second service based on a random selection, and

assigning a user-specified service provider of the plurality of service providers for providing the requested one of the first service and the second service based on a user input.

60. The computer program product of Claim 49, wherein:

the computer program code mechanism further has

SECRET

a fourth computer code device configured to route the end-user to an alternate one of the first service provider and the second service provider to provide the requested one of the first service and the second service when a network path is not available from the end-user to the selected one of the first service provider and the second service provider, and

the alternate one of the first service provider and the second service provider comprises one of a default and a randomly selected service provider.

61. A system for providing a wholesale provisioning service, comprising:

a service provider selection mechanism configured to relate a particular service provider of a plurality of service providers to a particular end-user of a plurality of end-users for providing a particular service of a plurality of services to the particular end-user;

a service request mechanism configured to receive a request for the particular service from the particular end-user; and

a path determination mechanism configured to route the particular end-user to the particular service provider based on the request.

2025-09-16 10:00:00